

Infrared Imaging of the LMC Star Forming Region Henize 206

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Henize 206 is a region of star formation in the Large Magellanic Cloud (LMC) of the approximate scale of the Orion belt and sword. Our Spitzer Space Telescope infrared images and Cerro Tololo Inter-American Observatory (CTIO) optical images show that the region is experiencing very energetic star formation. The radiation from young stars has excited strong PAH emission throughout Henize 206, except on the side of the nebula with the prominent young supernova remnant. As is also seen in early Spitzer observations of M81, star formation rates calculated from H Alpha for Henize 206 may be biased low by extinction, compared with star formation rates calculated from far infrared emission. For one of the highest surface brightness regions of Henize 206, we obtained snapshot exposures with T-ReCS on Gemini South to explore the complex structure. A few percent of the total energy from these brightest regions in Henize 206 emanates from infrared peaks of subparsec scale. Their luminosities are equivalent to those of B stars, similar to the excitation agents in Orion. In the future, the Herschel Space Observatory should be able to detect star forming regions like He 206 out to a few Mpc and confirm the conclusions from Spitzer for a larger sample extragalactic star forming regions.